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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10 030,084	05 24 2002	Vitalij Lissotschenko	A-7751	5650

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EXAMINER

MARTINEZ, JOSEPH P

ART UNIT	PAPER NUMBER
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2873

DATE MAILED: 07 09 2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/030,084	LISSOTSCHENKO ET AL.	
	Examiner	Art Unit	
	Joseph Martinez	2873	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12 and 18-22 is/are rejected.
- 7) ☒ Claim(s) 14-17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>3</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

The subject matter of this application admits of illustration by a drawing to facilitate understanding of the invention. Applicant is required to furnish a drawing under 37 CFR 1.81. No new matter may be introduced in the required drawing.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 12-13 and 18-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pryor (4602163) in view of Scheibengraber (5095386).

Re claim 12, Pryor teaches for example, a device for producing at least one line, or a group of lines of electromagnetic radiation (col. 1, ln. 60-64) of the optical spectral range in a preselectable three-dimensional area (fig. 1, col. 4, ln. 66-68), the at least one line, or the group of lines, are used as positioning aids, or geometry detection aids (col. 1, ln. 60-64), the device comprising at least one conversion unit (grid 102, fig. 2, col. 4, ln. 12-16) which is at least partially transparent to the electromagnetic radiation used and which can convert the electromagnetic radiation passing through it, such that the electromagnetic radiation forms the at least one line, or the group of lines in a given three-dimensional (col. 4, ln. 12-16) wherein the conversion unit comprises at least one element (objective lens 103, fig. 2, col. 4, ln. 12-16), by passing through the at least one conversion unit on at least one optically functional interface of

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the element the at least one line or the group of lines being formed in a given three-dimensional area (col. 4, ln. 12-16), but fail to implicitly teach the element as being refractive. However, within the same field of endeavor, Scheibengraber teaches for example the use of refraction elements (col. 7, ln. 34-37). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the objective lens of Pryor with the refractive elements of Scheibengraber in order to provide a much longer line and to even out the brightness of the line

Re claim 13, supra claim 12. Scheibengraber further teaches for example, the at least one optically functional interface (convex surfaces 110 and 114, fig. 3, col. 4, ln. 63-68) of the at least one refractive element has a freely selectable configuration which is suitable for the at least one line or the group of lines to be produced (fig. 3, col. 4, ln. 63-68).

Re claim 18, supra claim 12. Pryor further teaches for example, the at least one line is a straight line or a curved line (col. 6, ln. 1-4).

Re claim 19, supra claim 12. Scheibengraber further teaches for example, wherein the group of lines can be crosses (lines 378 and 328, fig. 7, col. 7, ln. 20-22), and the at least one line, which form the group of lines can be on top of one another at a right angle or at an angle which differs from a right angle (col. 7, ln. 50-51).

Re claim 20, supra claim 12. Pryor further teaches for example, the at least one line or the group of lines are curved such that they image a planar orthogonal lattice, when they encounter a curved surface of a workpiece in a given three-dimension area on the latter (col. 6, ln. 1-6).

Re claim 21, supra claim 12. Pryor further teaches for example, the device further comprises a laser light source (laser 540, fig. 7, col. 8, ln. 29-36) for producing the electromagnetic radiation.

Re claim 22, supra claim 12. Pryor further teaches for example, robots (manipulator arm 1, fig. 1) for machining of workpieces.

Allowable Subject Matter

Claims 14-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the prior art taken alone or in combination fails to anticipate or fairly suggest the limitations of the claims, in such a manner that a rejection under 35 USC 102 or 103 would be proper. The prior art fails to teach a combination of all the claimed features as presented in claims 14-17, wherein the claimed invention comprises an optically functional interface of the refractive element is divided into segments having the same size and identical shape, as claimed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Martinez whose telephone number is 703-305-0577. The examiner can normally be reached on M-F 7:00 AM to 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on 703-308-4883. The fax phone numbers for the

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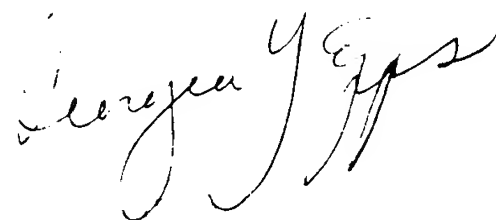
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organization where this application or proceeding is assigned are 703-308-7724 for regular communications and 703-308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-4883.

JPM

June 27, 2003

A handwritten signature in cursive script, appearing to read "George J. Pappas". The signature is written in dark ink and is located in the lower right quadrant of the page.